Amana®

Use and Care Manual

First Edition™ **Model**
Room Air Conditioners

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Introduction

This manual describes the proper use and care of Amana First Edition Model Room Air Conditioners. When properly installed, used, and maintained, First Edition Room Air Conditioners should provide many years of reliable service.

Before continuing, complete the enclosed registration card and return it to Amana. If registration card is missing, call Amana Consumer Affairs at 1-800-843-0304 (in U.S.A.) or 1-319-622-5511 (outside U.S.A.).

When contacting Amana about this product, the following information must be provided. The information is contained on the serial plate located behind the control panel (on mini chassis models) or on top of the evaporator cover (on small and large chassis models).

Model Number: _____

Manufacturing Number: _____

Serial or S/N Number: _____

Date of purchase: _____

Dealer's name and address: _____

_____

_____

_____

Keep this manual and your sales receipt together for future reference or in case warranty service is required. A sales receipt is required for all warranty service. Warranty service must be performed by an authorized Amana servicer. Contact Amana Consumer Affairs (at telephone number shown above) for the location of an authorized servicer in your area.

Safety Instructions

Recognize Safety Symbols, Words, and Labels

The following symbols and labels are used throughout this manual to indicate immediate or potential safety hazards. It is owner's responsibility to read and comply with all safety information and instructions accompanying these symbols. Failure to heed safety information increases the risk of personal injury, property damage, and/or product damage.

⚠ DANGER

DANGER—Hazards or unsafe practices which **WILL** result in **IMMEDIATE** severe personal injury or death.

⚠ WARNING

WARNING—Hazards or unsafe practices which **COULD** result in severe personal injury or death.

⚠ CAUTION

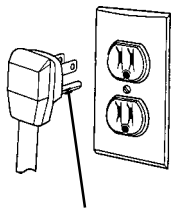
CAUTION—Hazards or unsafe practices which **COULD** result in minor or moderate personal injury, product damage, or property damage.

Important Safety Information

⚠ WARNING

To avoid risk of personal injury or death due to electrical shock:

- DO NOT, under any circumstances, alter grounding plug on air conditioner.
- Air conditioners covered in this manual are equipped with a three-prong (grounding) plug for protection against possible shock hazards.
- If a two-prong (non-grounding) wall receptacle is encountered, contact a qualified electrician and have the receptacle replaced with a properly grounded wall receptacle in accordance with the National Electrical Code and all applicable local codes and ordinances.
- Air conditioner must be grounded at all times.
- Do not use a two-prong adapter with this air conditioner.
- Do not use an extension cord with this air conditioner.



Grounding prong

⚠ CAUTION

To avoid risk of personal injury, property damage, or product damage due to the weight of this air conditioner and sharp edges that may be exposed:

- Air conditioners covered in this manual pose an excessive weight hazard. Two or more people are needed to move and install the air conditioner. To prevent injury or strain, use proper lifting and carrying techniques when moving air conditioner.
- Carefully inspect location where air conditioner will be installed. Be sure it will support the weight of the air conditioner over an extended period of time.
- Handle air conditioner with care. Wear protective gloves whenever lifting or carrying the air conditioner. AVOID the sharp metal fins on the air conditioner evaporator and condenser coils.

Component Identification

Parts and Feature Identification

Figures 1 and 2 show the location of various air conditioner parts and features described in this manual.

Figure 1. Air Conditioner External Parts Identification

1. Outer case
2. Side air louvers
3. Curtain assembly
4. Control panel
5. Control panel door (shown removed - not available on all units)
6. Return air vent
7. Air discharge vent (small/large chassis vents shown)

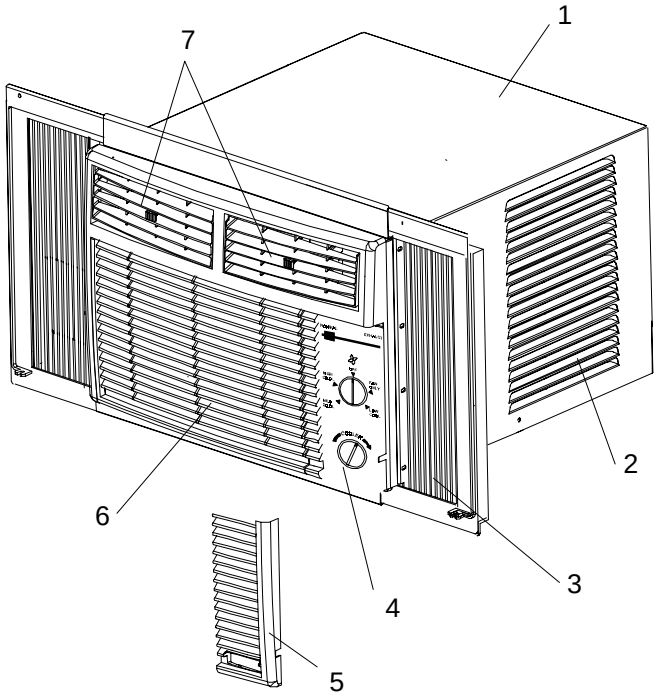
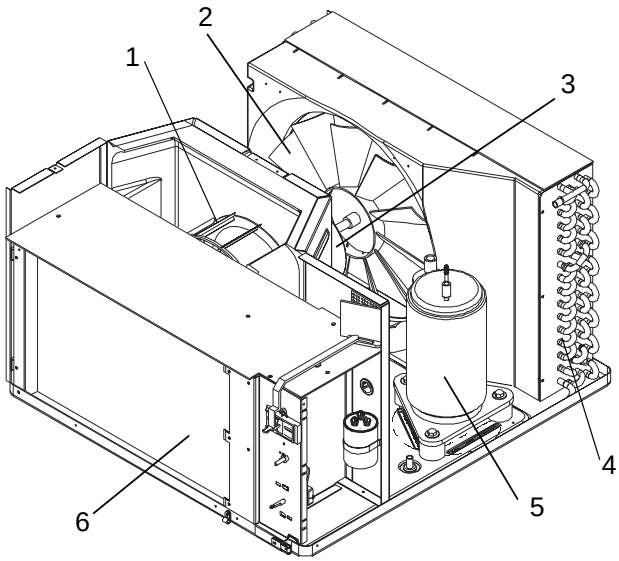


Figure 2. Air Conditioner Internal Parts Identification

1. Blower wheel
2. Condenser fan (includes slinger ring)
3. Fan motor
4. Condenser assembly
5. Compressor
6. Evaporator assembly



Installation

Installation Requirements

Air conditioner must be properly installed for safe operation. Refer to Installation Guide included with unit for detailed installation instructions. Small and mini chassis air conditioners are designed for window installation only, using installation kit provided with unit. Large chassis air conditioners may be installed in a window, using the window mounting kit provided, or can be in installed through an outside wall.

NOTE: Consumer assumes all risk for through wall installations.

Before beginning any installation:

- Carefully read all instructions for the installation. Make sure each step or procedure is understood and any special considerations are taken into account.
- Assemble all tools, hardware, and supplies needed to complete the installation. Some items may need to be purchased locally. Make sure everything needed to install air conditioner is on hand before starting.
- After deciding where to install unit, closely look location over—both inside and outside the home. Note any potential obstacles or problems that might be encountered. Choose a more suitable location if necessary.

Electrical Requirements

⚠ WARNING

To avoid risk of personal injury or death due to electrical shock:

- Electrical grounding is required on all air conditioners.
- Check with a qualified electrician if you are not sure intended electrical outlet is properly grounded.
- DO NOT ground to gas line.
- DO NOT use cold water pipe for ground if pipe is interrupted by plastic, non-metallic gaskets, or other insulating (non-conducting) materials.
- DO NOT modify plug on power cord. If plug does not fit electrical outlet, have a matching outlet installed by a qualified electrician.
- DO NOT have a fuse in the neutral or ground circuit. A fuse in the neutral or ground circuit could result in an electrical shock.
- DO NOT use an extension cord with this device.
- DO NOT use an adapter plug with this device.
- Observe all local codes and ordinances.

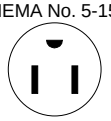
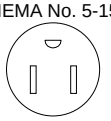
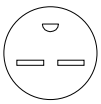
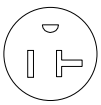
For safety, air conditioner must be grounded. All air conditioners have a power supply cord with a three-prong grounding plug. To minimize possible electrical shock hazard, the power cord must only be plugged into a matching grounding wall receptacle in accordance with the National Electrical Code (and any applicable local codes and ordinances). If an appropriate grounding-type wall receptacle is not available, have a properly grounded wall receptacle installed by a qualified electrician.

If codes permit, and a separate grounding wire is used, have a qualified electrician determine if grounding path is adequate and uninterrupted by plastic, non-metallic gaskets, or other insulating (non-conductive) materials.

Electrical Connection

Devices covered in this manual require a 60Hz supply. Refer to name plate on air conditioner for exact voltage requirements. Voltage requirements can also be determined by the type of plug on air conditioner. See following table (Table 1).

Table 1. Air Conditioner Power Requirements

Unit Plug Type	Receptacle Required	Circuit Rating, Breaker, or Time Delay Fuse	Voltage Rating On Nameplate
NEMA No. 5-15P 	NEMA No. 5-15R 	125V-15AMP	115V
NEMA No. 6-15P	NEMA No. 6-15R 	250V-15AMP	230/208V rated at 12 amperes or less
NEMA No. 6-20P	NEMA No. 6-20R 	250V-20AMP	230/208V rated over 12 amperes but not more than 16 amperes

An appropriate wall receptacle (electrical outlet) must be within reach of air conditioner power supply cord. Do not use an extension cord. If power supply cord does not reach intended wall receptacle, have a qualified electrician install or move an appropriate receptacle closer to unit.

Do not use an adapter plug. If intended wall receptacle does not match plug on air conditioner, have a qualified electrician replace receptacle with correct type.

Receptacle Wiring

Receptacle wiring must be of adequate size for unit. Refer to unit identification plate for exact power requirements. Power requirements can also be determined by the type of plug on unit (see Table 1). Minimum size of wiring, based on power requirements, is:

Units up to 20 amps: 12 gauge
20–30 amp units: 10 gauge

Use copper wire only. It is owner's responsibility to provide proper and adequate receptacle wiring that conforms to all applicable codes. All wiring should be installed by a qualified electrician.

Controls

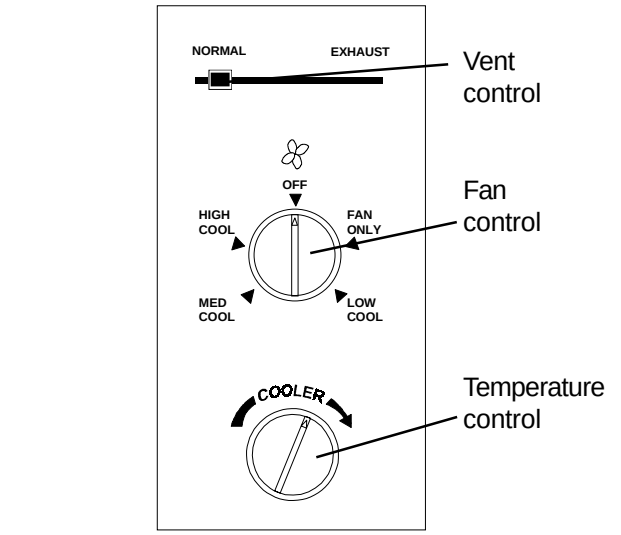
Control Panel

The air conditioner control panel is located on front of unit, or behind control door on front frame.

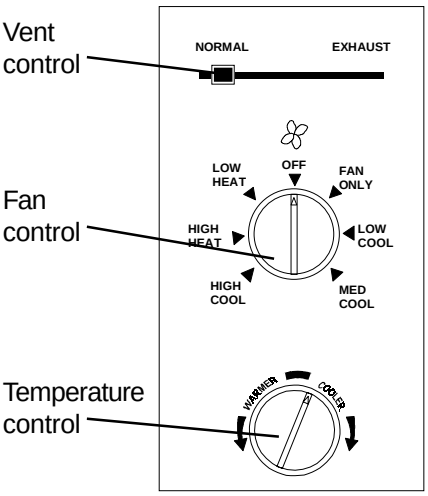
Air conditioner controls include the vent control (not available on all models), fan control, and temperature control. Shown in Figure 3 are control panels for "cool only" model air conditioners and for "heat/cool" model units.

The following paragraphs explain the functions and operation of each control.

Figure 3. Control Panels



Cool Only Model



Heat/Cool Model

Vent Control (not available on all units)

The vent control recirculates or exhausts room air by opening or closing a damper (vent door).

When control is in *NORMAL* position, air in conditioned area recirculates through air conditioner and back into room. No air is exhausted (vented) outside.

NOTE: For maximum efficiency, keep vent control in *NORMAL* position any time air conditioner is cooling or heating.

When control is in *EXHAUST* position, room air is exhausted (vented) outside. Use exhaust position to remove stale or smoky air from area.

NOTE: To conserve energy, keep fan control in *FAN ONLY* position when using exhaust feature.

Fan Control

The fan control enables the compressor and controls fan motor operation. On heat/cool models, the control also enables an electric heater.

The fan control settings include:

FAN ONLY—Fan runs continuously at high speed and compressor remains off. Use this setting to circulate air without cooling and, with vent control in *EXHAUST* position, to vent room of stale air, odors, smoke, etc.

LOW COOL—Fan runs continuously at low speed and compressor cycles on and off, depending upon room temperature. When on, compressor cools and dehumidifies air circulating through air conditioner. Select this setting for quiet operation.

MED COOL—Fan runs continuously at medium speed and compressor cycles on and off, depending upon room temperature. When on, compressor cools and dehumidifies air circulating through air conditioner.

HIGH COOL—Fan runs continuously at high speed and compressor cycles on and off, depending upon room temperature. When on, compressor cools and dehumidifies air circulating through air conditioner. Use this setting for maximum air circulation and faster cool down during initial start up.

HIGH HEAT—(Heat/cool models only) Fan runs continuously at high speed and electric heater cycles on and off, depending upon room temperature. When on, heater warms air circulating through air conditioner. Use this setting for maximum air circulation and faster warming during initial start up.

LOW HEAT—(Heat/cool models only) Fan runs continuously at low speed and electric heater cycles on and off, depending upon room temperature. When on, heater warms air circulating through air conditioner. Use this setting for quiet heating operation.

OFF–Turns air conditioner off.

⚠ CAUTION

To avoid tripping circuit breakers or blowing fuses, wait two minutes after turning air conditioner off before turning unit on again.

NOTE: Unplug air conditioner if it is to be turned off for an extended period of time.

Controls

Temperature Control

Use the temperature control to set and adjust temperature of room or area being conditioned. Turn control clockwise to lower temperature of conditioned space; turn control counterclockwise to raise temperature of conditioned space.

NOTE: Position of temperature control does not affect how quickly cooling or warming occurs. For faster cooling or warming, set fan control to higher speed.

When fan control is set for cooling or heating, the temperature control sensor (mounted behind return air vent) monitors room air temperature. When sensor detects cooling or heating is required, temperature control turns on compressor or electric heater, depending upon operating mode of air conditioner.

Operating Instructions

Before Turning Air Conditioner On

To operate air conditioner efficiently and ensure it provides maximum comfort:

- Tightly close all doors and windows in area being conditioned (cooled or heated).
- Make sure nothing obstructs airflow to or from air conditioner (do not place plants, furniture, lamps, etc., in front of the return air vent or air discharge vent).
- Make sure outdoor louvers are free of obstructions and fins on evaporator and condenser coils are free of dirt and debris.
- Make sure air filter is clean.

  NOTE: Air filter should be cleaned at least once a week during continuous operation. More frequent cleaning may be required in dusty environments. NEVER operate air conditioner with air filter removed.
- Make sure power cord on air conditioner is plugged into an appropriate receptacle. See Electrical Requirements section of manual.

⚠ WARNING

To avoid risk of personal injury or death due to electrical shock, DO NOT, under any circumstances, alter grounding plug. Air conditioner must be grounded at all times. If a two-prong (non-grounding) wall receptacle is encountered, contact a qualified electrician and have the receptacle replaced with a properly grounded wall receptacle, in accordance with the National Electrical Code.

Initial Start Up

To start air conditioner for the first time or after it has been turned off for an extended period:

1. Tightly close all doors and windows in area.
2. Check fan control on air conditioner control panel. Control should be in *OFF* position.
3. Plug air conditioner power cord into wall receptacle.
4. Make sure vent control is in *NORMAL* position. For maximum efficiency, vent control should be in *NORMAL* position whenever air conditioner is cooling or heating.
5. **If cooling is desired**, place fan control in *HIGH COOL* position and temperature control to coldest (fully clockwise) setting.
   If heating is desired, place fan control in *HIGH HEAT* position and temperature control to warmest (fully counterclockwise) setting.
6. When area reaches desired temperature:
   - If cooling, slowly turn temperature control counterclockwise until compressor turns off.
   - If heating, slowly turn temperature control clockwise until temperature control “clicks.”

Temperature control maintains area at desired temperature by cycling compressor (or electric heater) on and off.

NOTE: For quieter operation, reduce fan speed after setting temperature control at desired temperature.

⚠ CAUTION

Do not use condensate (water that accumulates in air conditioner base pan) for drinking or cooking. It is not sanitary.

Operating Instructions

Adjusting Airflow Direction

Adjusting airflow direction (the path taken by air blowing out of air discharge vent) can eliminate hot or cold spots in conditioned area, reduce drafts, and speed cooling or heating of area.

Airflow direction is determined by the air discharge vent louvers. To adjust airflow direction, move louvers in the desired direction. On mini chassis models, louvers can be adjusted left or right. On small and large chassis units, louvers are adjustable up, down, left, and right.

Energy Saving Tips

Like all electric appliances, room air conditioners consume energy. The amount of energy used by a particular unit depends on several factors, including size (BTUs) of air conditioner, indoor and outdoor environmental conditions (temperature/humidity), and the level of cooling or heating desired. To reduce the energy consumed by this air conditioner:

- Keep air conditioner filter, evaporator coil, and condenser coil clean and free of obstructions. See Care and Maintenance section of manual.
- Increase insulation in walls and ceilings.
- Close all heating and ventilation diffusers or vents (including furnace cold air return vent) in area being conditioned.
- Close drapes or blinds on windows receiving direct sunlight (when cooling). Install window coverings or awnings on windows not currently covered.
- Make sure attic is adequately ventilated.
- Avoid using heat producing appliances (when cooling) during hottest parts of the day.

Sounds Heard During Normal Operation

Certain sounds may be made by the air conditioner when it is running, especially in a cooling mode. Some sounds that may be heard include:

- Water splashing onto condenser; caused by slinger ring (attached to condenser fan). Slinger ring picks up condensate in base pan and sprays it on condenser to increase efficiency of unit.
- Compressor cycling on. It may seem as if compressor runs more often than other (older) air conditioner models. The high efficiency compressors used in new Amana Room Air Conditioners run more frequently, but consume less energy than older, less efficient compressors.
- Airflow from air discharge vent. If sound is distracting, try adjusting louvers on discharge vent, moving objects that may be obstructing airflow, or reducing fan speed.

Care and Maintenance

Maintenance Schedule

⚠ WARNING

To avoid death or personal injury due to electrical shock, unplug power cord before cleaning or performing maintenance on this device.

Room air conditioners are designed and manufactured to provide years of dependable service when properly cared for and maintained.

Table 2, Maintenance Schedule, shows the maintenance necessary to keep the unit operating at peak efficiency. Most maintenance can be performed using common tools, equipment, and products. See the Maintenance Procedures paragraphs for instructions.

Table 2. Maintenance Schedule

Maintenance Required	Procedure	Frequency
Inspect/clean air filter.	Remove air filter and inspect. Clean if required, then replace. **NOTE:** Never operate air conditioner with filter removed.	Weekly
Inspect/clean air discharge louvers, return air grille.	Inspect air discharge louvers and return air grille for dust and dirt accumulation. Clean if necessary. **NOTE:** Inspect more often in dusty environments.	Weekly
Inspect louvers on outer case for obstructions.	Inspect louvers on outer case and remove any obstructions.	Monthly
Inspect condenser coil.	Inspect condenser coil for dirt, bent fins, and other obstructions. Clean/repair if necessary. **NOTE:** Inspect more often in dusty environments.	Annually

Care and Maintenance

Maintenance Required	Procedure	Frequency
Inspect evaporator coil.	Inspect evaporator coil for dirt, bent fins, and other obstructions. Clean/repair if necessary. **NOTE:** Inspect more often in dusty environments.	Annually
Inspect outer case for signs of damage.	Inspect interior and exterior of outer case for scratches, paint blisters, rust, and other damage. Repair as necessary. **NOTE:** Inspect more often in salty or other corrosive environments.	Annually
Inspect/clean base pan.	Inspect base pan for scratches, blisters, rust, dents, and other damage. Repair as necessary. **NOTE:** In areas of excessive humidity, using an algaecide (an algae inhibitor) in base pan may reduce algae build-up.	Annually

Maintenance Procedures

⚠ WARNING

To avoid death or personal injury due to electrical shock, unplug power cord before cleaning or performing maintenance on this device.

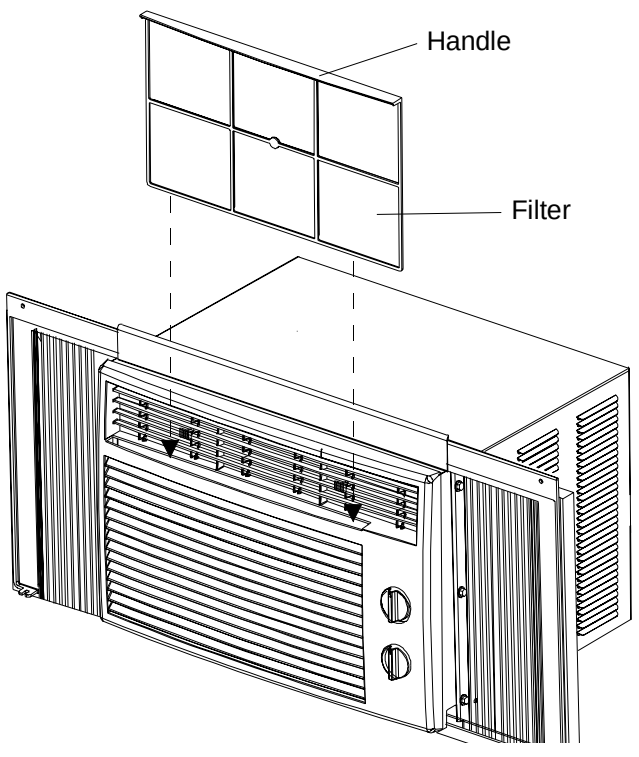
Air Filter Removal and Cleaning

NOTE: Never operate air conditioner with filter removed.

Mini Chassis Air Filter Removal

See Figure 4. Remove filter by lifting handle located on top of front grille and pulling filter free of unit.

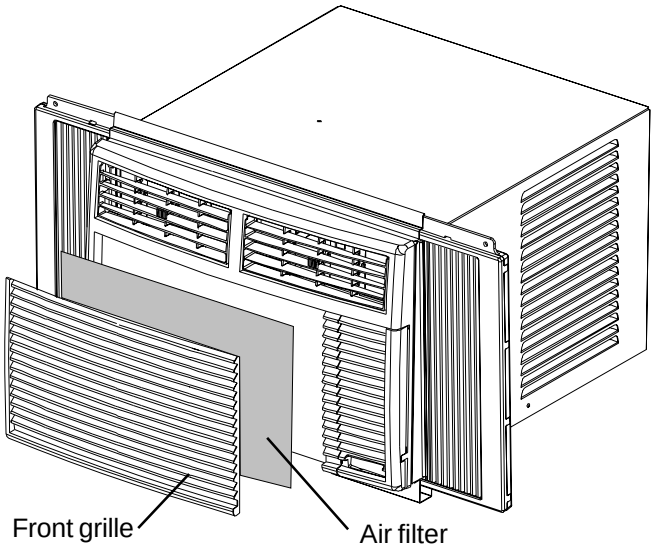
Figure 4. Mini Chassis Air Filter Removal



Small and Large Chassis Air Filter Removal

See Figure 5. Access filter by removing front grille, then lift filter off tabs on front frame.

Figure 5. Small/Large Chassis Air Filter Removal



Cleaning Air Filter

Clean filter by vacuuming. Especially dirty filters can be cleaned with a mild solution of warm soapy water. Rinse filter of all soap residue and completely dry before reinstalling.

Care and Maintenance

Evaporator Coil, Condenser Coil, and Base Pan Maintenance

NOTE: See Component Identification section of manual for location of parts described in following paragraphs.

Outer Case Removal

To inspect and clean base pan, condenser coil, and evaporator coil, air conditioner outer case must be removed from chassis. To remove outer case on large chassis air conditioners, refer to the installation instructions shipped with the unit.

To remove outer case from small and mini chassis units:

1. Remove air filter and set aside.
2. Remove control knobs by pulling knobs straight out.
3 Remove screws securing front frame to air conditioner chassis.

   On small chassis units, pull front frame out and away from air conditioner.
   On mini chassis units, release “locking tabs” securing right and left sides of frame to outer case by gently but firmly pushing frame in one direction and outer case in opposite direction. (For example, to release right side of frame, push frame to the right while pushing case left.)

   When both sides of frame are released, lift frame to release top tabs, then pull frame out and away from chassis.
4. Remove screws securing outer case to air conditioner base pan.
5. Remove screws securing top of case to partition panel.
6. Remove screws securing sides of case to partition panel.
7. Remove screws securing rear of case to condenser coil.
8. Lift outer case off chassis.

Inspecting and Cleaning Coils

Inspect evaporator and condenser coils. Check for bent fins and accumulations of dirt or other debris that may reduce or block airflow through coils. Reduced or blocked airflow affects air conditioner efficiency and can lead to premature compressor failure.

Attempt to straighten bent fins by “combing” fins with a fine tooth comb. Vacuum or blow dirt and debris from coils. Use a brush to loosen difficult accumulations of dirt.

Inspecting and Cleaning Base Pan

Inspect base pan. Check for dirt and debris, algae build-up in condensate drain channels, scratches, paint blisters, and rust spots.

- Vacuum or blow dirt and debris from base pan. Use a brush to loosen difficult accumulations of dirt.
- If algae build-up is present, clean with sponge or cloth dampened with warm soapy water.

NOTE: Placing an algaecide in outdoor side of base pan may reduce or eliminate problem of algae build-up. For best results, thoroughly clean base pan of old algae before using an algaecide.

- Use a wire brush to remove any rust and loose paint in base pan. Prime rust spots and bare metal with quality metal primer, then repaint areas using quality enamel paint.

Outer Case Maintenance

Inspect outer case. Check for scratches, paint blisters, and rust on both inside and outside of case.

NOTE: Remove chassis from outer case to inspect interior of outer case.

Repair scratches, rust, and paint blisters using a quality enamel paint. Before painting, remove any loose paint and rust with a wire brush. Prime rust spots and bare metal with quality metal primer before repainting.

Fan Motor

The fan motor is permanently lubricated. Never add oil to the motor.

Troubleshooting

The following table describes some common problems that may be encountered with a room air conditioner. Each problem is accompanied by several possible causes and solutions.

Problem	Possible Cause	Solution
Unit will not turn on.	• Power cord unplugged.	• Ensure power cord is firmly plugged into outlet.
	• Blown fuse or tripped circuit breaker.	• Replace blown fuse; reset tripped breaker.
	• Electrical power low (“brown out”).	• Low voltage protection prevents operation if supply voltage drops below 103.5 VAC for 115 VAC units or 197 VAC for 208/230 VAC units. Contact local electric utility if supply voltage is low.
	• Electrical power outage.	• Contact local electric utility.
Unit does not adequately cool (or heat) area.	• Dirty air filter.	• Remove and clean air filter. **NOTE:** Do not operate air conditioner with filter removed.
	• Room or area not sealed.	• Close all doors and windows in area. Close all air vents and ducts in area.
	• Vent Control in EXHAUST position.	• Vent Control should be in NORMAL position whenever air conditioner is in cooling or heating mode.
	• Airflow to or from unit blocked.	• Remove any obstruction to airflow from air discharge vent or return air vent on unit.
	• Unit improperly sized for room or area.	• Reduce area being conditioned (close doors or otherwise isolate area).
	• Temperature control not properly set.	• Turn temperature control to more comfortable setting.
Mounting support cannot be installed.	• Window has storm window frame.	• Refer to installation instructions to determine if window frame can be modified or if storm window frame must be removed.
Odors in cooling.	• Formation of mold, mildew, or algae on wet surfaces.	• Clean unit thoroughly. • Place algaecide in base pan.
Odor in heating.	• Caused by dust accumulation; normal whenever heater is first used and when heater has not been used for a period of time.	• Odor will dissipate after heater cycles on and off several times.
Unit noisy.	• Unit improperly installed, causing vibration when operating.	• Review installation procedures. Ensure all mounting hardware is tight and secure.
	• Water noise whenever fan runs.	• Normal, especially during periods of high humidity.
	• Loose screws or parts.	• Remove chassis from outer case. Check for loose or missing screws. Tighten or replace as required.

When Service is Required

Warranty service must be performed by an authorized Amana Service Center. To locate the nearest authorized servicer, contact dealer where unit was purchased or call Amana Consumer Services. To ensure prompt service, be prepared to provide:

1. An accurate description of the problem.
2. Complete model, serial, and manufacturing numbers (located on air conditioner serial plate).
3. Date of purchase (proof of purchase or sales receipt required upon request).

NOTE: Repair by unauthorized servicers, resulting in subsequent failure, voids air conditioner warranty. See Warranty section of manual for full warranty details.

Keep an accurate record of service calls. Record the work performed, service technician's name, and date service was provided.

Questions and Problems

Most questions and problems can be answered or resolved by local Amana dealers. Contact dealer first for additional information about air conditioner operation, maintenance, or service. If questions or problems cannot be answered or resolved locally, call Amana Consumer Services at the number shown below.

If you would like information on other Amana heating and cooling products or appliances, please call:

CONSUMER INFORMATION LINE

Amana Toll-Free

1-800-843-0304

(Not a technical assistance line for dealers)

Warranty

Full One Year Warranty on Air Conditioner

For one year from the date of purchase, when this Amana Room Air Conditioner is operated and maintained according to the instructions furnished with it, Amana will repair air conditioner free of charge if it is defective in material or workmanship.

Full Five Year Warranty on Sealed Refrigeration System

For five years from the date of purchase, when this Amana Room Air Conditioner is operated and maintained according to the instructions furnished with it, Amana will repair the air conditioner sealed system (consisting of compressor motor, connecting tubing, evaporator coil tubing, and condenser coil tubing) free of charge, if defective in material or workmanship.

Warranty Service

Warranty service is available by contacting the nearest Amana Service Center in the United States.

Warranty coverage applies only to air conditioners used for non-commercial, private household purposes.

This warranty applies only while this product is in use in the United States.

This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state.

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